Panasonic
ideas for life

## KX-VC600/VC300

# HD Visual Communications System

# Take Your Meetings to the Next Level with an HD Visual Communications System from Panasonic

## Real-time collaboration in stunning HD

A Panasonic HD Visual Communications System lets you simulate and reap the benefits of face-to-face interaction without the exorbitant costs and carbon footprint associated with business travel.

With HDVC you can closely inspect a CAD drawing of a newly-milled machine part by your factory, observe and oversee delicate vascular surgery from across the country or train your global sales force—just as if you were physically present. Using only a standard Internet connection, you'll experience crystal-clear HD video combined with full-duplex sound that lets you capture the nuances of facial expression, tone of voice and body language—crucial towards developing a level of trust and rapport otherwise afforded only by a meeting in person.

## Easy Connection and Operation

With Panasonic HDVC, you can one-touch connect with the desired party using the remote control or select using the address book. The connection status of the network and peripheral devices is conveniently displayed on the screen.

## 1080i Full HD Video

As a premier developer of HD video technologies, Panasonic delivers a dazzling level of realism that bridges oceans by seamlessly bringing your clients and associates together.

## 360º HD Audio

360º Full-Duplex Audio combined with our Echo Canceller feature lets parties on both sides of the conference talk at once—just as you would in a face-to-face meeting. Voices are clear no matter where in the room the person speaking might be situated.

## Stable Connection

Our original A/V-QoS technology helps prevent image and sound disruptions on both intranet and internet connections.

## Computer/Sub Camera Connection

By connecting a PC or sub camera, you can show the other party your computer screen or images from an additional camera—perfect for adding slideshows, movies or other images to the meeting. While the other party is watching your visual aid, you can be watching them to gauge reactions.

## MCU Interoperability

Designed for maximum flexibility, Panasonic HDVC can be integrated into an existing video conferencing system with the use of a multipoint control unit (MCU).

# Industry Applications

## Healthcare

With HDVC, doctors in urban locations can demonstrate new surgical techniques to other doctors or students in more remote locations without costly, time-consuming travel. Physicians can consult with one another in real time across continents and can provide diagnostic assistance by getting a detailed look at x-rays, charts or patients themselves, saving time and money. Medical students can participate in interactive training sessions with experts a continent away. 360º Full-Duplex Audio means participants on both sides of the conference are clearly heard.

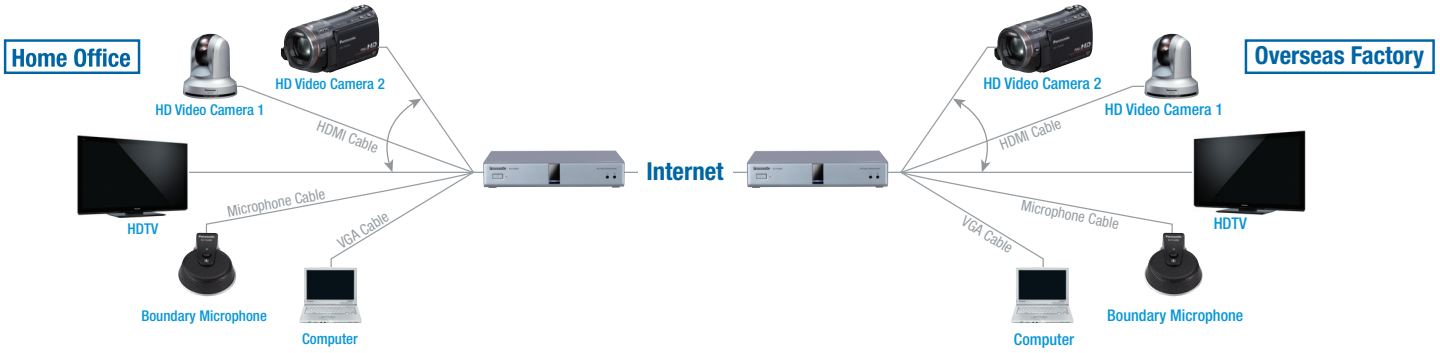
## Manufacturing

Engineers who would otherwise travel to factories to inspect machinery, collaborate on new product designs or train workers can now get a detailed look at blueprints or finely-machined parts, demonstrate assembly methods or conduct quality control seminars without leaving the home office. Sales managers can conduct detailed training sessions with multiple branch offices at once. HR departments can interview candidates and see their expressions and body language rather than conduct just a phone interview. Onerous travel expenses are instead rerouted to the bottom line while wasted travel time is eliminated.

## Education

Engage and empower students like never before with an HD Visual Communications System. Experts and prominent lecturers who would otherwise be unavailable due to time and travel constraints can now be brought into the “virtual classroom.” HD video lets a renowned paleontologist show students across the country a close-up view of the bone-crushing jaws of a Tyrannosaurus rex. Students at satellite college campuses can attend lectures by top professors stationed at the main campus. Notes on a blackboard and other visual aids are seen clearly. Crisp HD audio keeps everyone engaged as no question goes unheard.

# Configuration Example



## Included and Optional Accessories

Remote Control (Included)

Digital Boundary Microphone KX-VCA001*

Analog Boundary Microphone KX-VCA002*

Camera Security Adaptor KX-VCZ001J*

Activation Key Card for KX-VC300

KX-VCS301 for 4-site connectability*

KX-VCS401 for Full HD compatibility*

*Sold separately

**Video Camera**
HD Camcorder

HD Integrated Camera AW-HE50H

**Display**
Full-HD Plasma/ LCD Display

HDMI cables are required for connection to the camera, TV, etc.

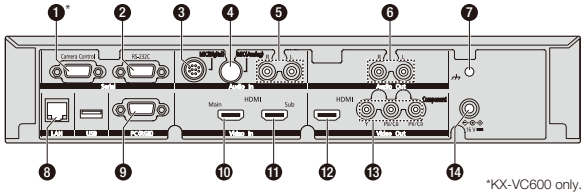
## Specifications

| Main Unit (KX-VC600 / KX-VC300) | | KX-VC600 | KX-VC300 |
|---|---|---|---|
| Communication protocol | | SIP | |
| Communication rate (Min to max) | IP communication with 2 locations connected | 512 kbps to 9 Mbps | |
| | IP communication with 3 locations connected*1 | 1 Mbps to 7 Mbps | |
| | IP communication with 4 locations connected*1 | 1.5 Mbps to 7 Mbps | |
| Bandwidth (For different levels of resolution) | | 3 Mbps minimum*2 for 1080i*3<br>1.5 Mbps minimum*2 for 720p<br>512 kbps minimum*2 for 4SIF | |
| Video codec | | ITU-T H.264 high profile level 4.0 (B picture is not supported),<br>ITU-T H.264 baseline profile level 3.1 (For connections to MCUs and non-Panasonic video conference systems) | |
| Video input | HDMI 1 (main video camera) | Input resolution: 1080i (image only) | |
| | HDMI 2 (sub video camera) | Input resolution: 1080i (image only) | |
| | | Available devices: Video camera (Blu-ray Disc/DVD players cannot be connected) | |
| | VGA 15P mini D-Sub (RGB IN) | Input resolution: XGA, SVGA, VGA | |
| Video output | HDMI (display) | Resolution: 1080i | |
| | Component (video output) | Resolution: 1080i | |
| Audio codec | | MPEG-4 AAC-LD (LATM format), G.722 (For connections to MCUs and non-Panasonic video conference systems) | |
| Audio range | | 20 kHz | 14 kHz |
| Audio input | Boundary microphone | Optional Digital Boundary Microphone KX-VCA001 (Up to 4 microphones)<br>Optional Analog Boundary Microphone KX-VCA002 (1 microphone only) | Optional Analog Boundary Microphone KX-VCA002 (1 microphone only) |
| | Stereo mini-plug (audio input) | Diameter 0.1 in. (3.5 mm) Available devices: headset<br>Input is the headset microphone level. Either the Boundary Microphone terminal or the microphone connector is active, but not both. | |
| | RCA pin jack (audio input) | Maximum line level input: 1.2 Vrms Available devices: stand microphone (via microphone amplifier), audio mixer etc.<br>Echo canceller enabled<br>Both enabled when using a Boundary Microphone and RCA microphone together. | |
| Audio output | (HDMI) | For connecting to a display (with speaker) | |
| | Stereo mini-plug (audio output) | Diameter 0.1 in. (3.5 mm) Available devices: headset<br>Output is the headphone. Either the RCA terminal or the headphone connector is active, but not both. | |
| | RCA pin jack (audio output) | For connecting to a display (with speaker), amplifier or active speaker | |
| Maximum conference points | | 4 *4 | 2 *1 |
| Alternative video sources | | PC (VGA terminal), sub video camera (sub HDMI video only) | |
| Encryption method | | AES-CM/unique | |
| Network | RJ45(LAN) | Full duplex 100BASE-TX only | |
| Control (serial) | RS-232C | For connecting to a computer for maintenance (use a straight cable) D-Sub 9 pin (male) | |
| Dimensions (W x H x D) | | Approx. 12 in. x 2.4 in. x 9 in. / 320 mm x 60 mm x 230 mm | |
| Weight | | Approx. 4.4 lb / 2 kg | |
| Voltage and frequency | | AC 100-240 V, 50/60 Hz | |
| Power consumption | | Maximum: approx. 39 W | Maximum: approx. 23 W |
| Operating temperature | | 32 °F to 104 °F / 0 °C to 40 °C | |
| Operating humidity | | 10 % to 90 % (non-condensing) | |

| Boundary Microphone (sold separately) | KX-VCA001 | KX-VCA002 |
|---|---|---|
| Standard pickup range | Approx. 6.5 ft.(radius), 360° / 2 m(radius), 360° | Approx. 4.9 ft.(radius), 360° / 1.5 m(radius), 360° |
| Maximum pickup range | Approx. 9.8 ft.(radius), 360° / 3 m(radius), 360° | Approx. 6.5 ft.(radius), 360° / 2 m(radius), 360° |
| Pickup method | Stereo (automatic left/right channel setting, with 1 unit connected)<br>Monaural (with 2 to 4 units connected)*5 | Stereo (fixed stereo sound pick-up) |
| Microphone unit | Unidirectional ECM microphone parts x 4 | Unidirectional ECM microphone parts x 2 |
| Number of connections | Maximum 4 microphones | Maximum 1 microphone |
| Bandwidth | 150 Hz to 10 kHz | 200 Hz to 10 kHz |
| Maximum input sound pressure | 110 dBspl | |
| Sampling frequency | 48 kHz | |
| Delay time | 1 ms or less*6 | |
| Number of terminals for microphone connection | 2 | 1 |
| Mute button | Spring-return Push Switch | |
| LED | Red: The microphone is muted. Green: The microphone is transmitting.<br>Orange: The microphone is starting up (flashes for approx. 1 second). Off: The microphone is not transmitting. | |
| Dimensions | Approx. 4.7 in.(diameter) x 0.9 in. / 120 mm(diameter) x 25 mm | Approx. 2.9 in.(diameter) x 1.2 in. / 75 mm(diameter) x 32 mm |
| Cable length | Approx. 28 ft. / 8.5 m | Approx. 23 ft. / 7 m |
| Power input | Supplied from main unit via proprietary cable | |
| Weight | Approx. 0.6 lb / 280 g | Approx. 0.2 lb / 80 g |
| Operating temperature | 32 °F to 104 °F / 0 °C to 40 °C | |
| Operating humidity | 10 % to 90 % (non-condensing) | |

*1 The optional Activation Key Card lets you expand the KX-VC300 system for connection of up to 4 locations.
*2 This value is for reference purposes only. The actual value may vary depending on the image and communication conditions.
*3 The optional Activation Key Card lets you upgrade the maximum resolution of the KX-VC300 system to 1080i.
*4 Some restrictions apply when 3 or 4 locations are connected. For details, please consult with your local dealer.
When connecting to non-Panasonic video conference systems, connection is limited to 2 locations.
*5 Stereo sound can also be picked up from 2 to 4 units by changing the user setting.
*6 This indicates the microphone performance, and not the actual delay time when it is connected.

**Rear Panel View**




*KX-VC600 only.

1. Camera Control terminal* (Nonusable)
2. RS-232C terminal
3. MIC jack (Digital)*
4. MIC jack (Analog)
5. Audio In L/R jack
6. Audio Out L/R jack
7. GND terminal
8. LAN jack
9. RGB terminal
10. Main Camera terminal
11. Sub Camera terminal
12. HDMI terminal
13. Component terminal
14. DC IN



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Design and specifications are subject to change without notice.